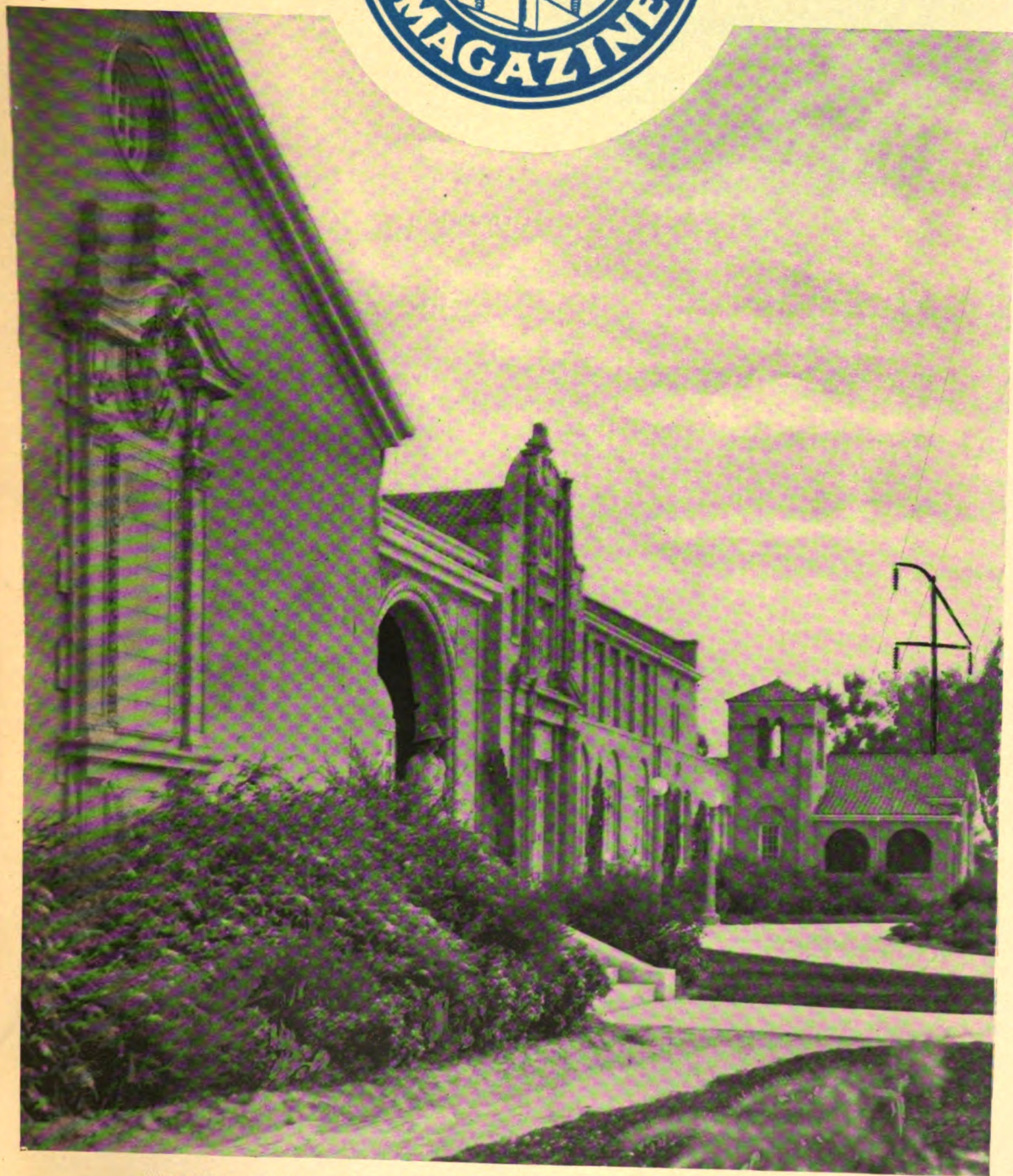




2c PAID
Fresno, California
PERMIT No. 47

San Joaquin Power



FOWLER HIGH SCHOOL—SERVED BY SAN JOAQUIN POWER

August, 1923

PUBLISHED MONTHLY BY THE
SAN JOAQUIN LIGHT & POWER CORPORATION

Price 10 Cents

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NOTICE TO STOCKHOLDERS—It is the desire of San Joaquin Power that stockholders should receive this magazine without charge. It is assumed that one copy of the magazine will be sufficient for each family. If more than one copy is coming to you or your family, will you kindly notify us so that we may cancel from our lists extra copies not needed.

Address all communications San Joaquin Power Magazine, Fresno, Calif.

Volume V.

AUGUST, 1923

Number 8

Price, by the year, \$1.00

Single copies, 10c



J. G. Wilson

*Vice President and Managing Director San Joaquin Light & Power
Corporation.*

Pioneering Electric Power in the San Joaquin Valley

Managing Director A. G. Wishon Tells His Own Story of Early Days of The Industry

In the last annual report of the President of the San Joaquin Light & Power Corporation, it was said that the entire story of the electrical industry is to be found in the comparatively brief narrative of this organization's history. Our company was a pioneer in the field of hydro-development, and it has kept pace with all that has been accomplished in the building up of the industry to its present place of importance in the economic and industrial life of our nation.

No man is so well qualified to tell the story of the San Joaquin Light & Power Corporation as A. G. Wishon, who has been with it since it was in its swaddling clothes and who has been chiefly responsible for its reaching its splendid stature of today. That story was told by Mr. Wishon on March 24th last before the Pacific Coast Section of the National Electric Light Association. It was really the story of Mr. Wishon's life as far as his association with the electrical industry is concerned. The relation of his early efforts when he promoted the Mt. Whitney Power Company with vision as his sole asset is of great interest, for out of his experiences here came the knowledge that guided him over the pitfalls in his subsequent conduct of the San Joaquin Company.

Mr. Wishon's story will be published in three successive issues of this magazine.

By A. G. WISHON

Vice President and Managing Director San Joaquin Light and Power Corporation.

ARRIVING in California in August, 1889, my first activities were to get a job at whatever there was to do. This was accomplished in a few days, as the price of my services was whatever I could get.

I kept thinking over the possibilities of power development and the possibilities of transmitting the power to the people, instead of having the people go to the power. I visited one of the earliest water power plants to be built in California, near Ontario, a few miles east of Pasadena. That was the place where the only street car line was operated by two mules. They pulled the car three miles up the hill and were so trained that upon being unhitched, they immediately climbed onto the back platform and by gravity went down the hill, along with the passengers, to the Southern Pacific Station.

LONG TRANSMISSION DISCOURAGED

Selecting my field of operations I made a map of my proposed power plant on Kaweah River, using data secured from the Tulare Irrigation District as to its head,

thereby avoiding any preliminary engineering expenses. The possibilities of transmission to Visalia, Tulare, Porterville, Exeter, and Lindsay were submitted to Dr. Addison of the General Electric Company. His prompt reply, as to whether this power could be transmitted to these towns, the maximum distance of which was thirty miles, "took the wind out of my sails." He said the insulation would preclude its delivery over a distance greater than twenty miles.

In the meantime, I had gone into the real estate, fire and life insurance business—spending as much of my time promoting my power plan as my limited means would permit. I visited the orange orchards of Riverside, examined the lands, studied the climatic conditions carefully, and came to the conclusion that the foothills near Lindsay and Exeter would raise oranges. In fact, there were some oranges being grown near Porterville, along the base of the foothills.

From a contour map that was issued by the State Engineer in 1887, I platted a

ditch from the tail race of my proposed power house, along the north and south foot-hills. I went over this land carefully, got a close estimate of what acreage could be purchased for and wrote in my first prospectus that there were 20,000 acres north of Kaweah River and 30,000 acres south that could be covered by gravity—pumping the water out of shallow wells in the swamps west of Lemon Cove, only a mile or two from the proposed power house. I figured that after buying the land, building the ditches, and all facilities, there was a possibility of \$25.00 an acre profit.

On that basis I endeavored to finance the undertaking, which was estimated to cost about \$150,000 for the power plant. The ditches were to cost about \$1,000 a mile. I first approached nearly all the local bankers and many of my acquaintances, with a view of doing this financing at home, but got poor encouragement. Instead, I established an unfortunate reputation of being a "visionary." Then I tried through channels in Chicago, New York, and other financial centers to reach those who were willing to take a chance, with no better result. I finally ran onto a group of men in Pasadena and Los Angeles, who were here to spend the winter, and five of them agreed to put up money enough to build the power plant and ditches—dividing the ownership into six equal interests.

LIVING COSTS NOT HIGH

Early in 1895 we began this work, with myself as construction superintendent, bookkeeper, time keeper, purchasing agent, camp boss, and general roustabout. We worked about 200 men during part of that year, paying \$1.00 a day and board, and that board cost us from 12c to 16c a meal. We hired horses, with harness, at \$5.00 to \$8.00 a month. We bought hay, delivered, at \$10.00 a ton; dressed pork, delivered by the wagon load, at 6c a pound, and everything else in proportion. We could go to Chinamen's gardens and get a wagon load of assorted vegetables for \$5.00.

The work went along very well, but we were held up in the building of 1,000 feet of tunnel through the gap, above Lemon Cove, the same being there today as one of the landmarks, used only by the

bats—never having had water through it. On account of the possibility of orange land sales we began extending our irrigation ditch, having purchased the water rights of the Pogue, Wallace and Crocker Ditch—extending it around the foothills as far as Exeter, where we sold water rights. In this way we took in all the money that had ever been spent on the upper and lower works.

In the meantime, the San Joaquin Electric Plant at Fresno, with its 37 miles of transmission of 1050 K. W. at 11,000 volts, had been completed, and I made the long drive to see the power house and the line. Then immediately followed the building of the line, 82 miles long, from H. R. Sinclair's Mill Creek Plant, near Redlands, into Los Angeles, now the property of the Southern California Edison Company. I went to see that. Then came the Kern Canyon Plant a little later, and I went to see that, and other early California plants as they began to function.

CAPITALISTS GET "COLD FEET"

I then went to my Pasadena capitalists and told them that we could abandon our work near Lemon Cove, with a head of 126 feet and build a plant with 1300 feet head, where the Mt. Whitney No. 1 is now located, for less money than it would take to complete the plant we had started; that it would give us 1800 H. P. instead of 1100 H. P., and that the latest experience in transmission would justify our making the change. This suggestion gave the whole aggregation "cold feet," and they resolved then and there to get out of the power business "while the getting was good."

So I had a couple of more years of promotion in finding other men who would furnish the capital. Finally, Billy Hammond became my partner towards the end of his long term as county clerk of Tulare county. I wanted him in with me as he had a wide acquaintance with men of means on the coast, and I thought that I could use him in helping to round up the necessary capital. We tried several channels, some of which were promising, but all of which failed. Two parties in Oakland agreed to furnish the money, and we went so far as to announce it in the papers, but this was suddenly followed by

a request to defer it a year, as these men were some of the backers of "Swift Water Bill" in a transportation scheme, at the time of the great Klondyke rush. We did not promise to wait but did not throw them over.

JOHN HAYS HAMMOND ENLISTED

We kept selling land, on which we made money, and one day upon the completion of a sale on which we made \$4,600 profit, I suggested to Billy that he go to London, where his brother, John Hays Hammond, the now famous mining engineer, had just returned from South Africa immediately after the well known Jameson Raid. I do not believe that Billy knew his brother had much money, and I am quite sure I did not. I know well that neither of us had any idea of getting him in with us, but thought he might be useful in introducing Billy to some of the English people, who had the reputation of investing in anything, anywhere on the globe. So after considerable persuasion I induced him to go.

(To be Continued)



Tamarac trees bent by weight of snow under which they remain covered during the coldest winter weather. When the snow is gone these trees straighten up and continue their growth. From hydrographers' photos made on upper Kings River where San Joaquin Power ultimately will develop 500,000 horsepower.

GARAGE MECHANIC SEES SNAKE IN KINGS RIVER TRUCK—RUNS

A few days ago a large truck working in the vicinity of Balch Camp, on the Kings River, was driven into the garage at Fresno for repairs. A mechanic who was assigned to the job of making the repairs crawled under the big machine and started to work. A few minutes later another mechanic who was to help on the job got down on his hands and knees and gazed up into the running gear in the neighborhood of the rear axle. The sight that met his eyes held him transfixed for a moment. He finally recovered sufficient breath to gasp, "Bill, whaddya got there?" Bill turned and took one look. By means of hands, feet and knees Bill shot out from under the truck as though he was kicked by a mule, scrambled to his feet and started through the door on the dead run.

The cause of Bill's fright was a huge gopher snake that had coiled itself around the axle, and was threatening Bill's nearby hand with open mouth and swaying head, emitting steam-like hisses.

The snake was snared by means of a fish line looped about its head, and proved quite a curiosity. One of the crowd that gathered declared it was a female rattler, because it had no rattles, and execution was duly ordered.

Bill now makes a thorough inspection of Kings River trucks by means of a flash light before venturing under them for repairs.

CORN FOR SILOS PACKS BEST WHEN CUT SHORT

Corn for silage must be cut fine and tramped well in the silo if it is desired to make the best quality of feed. Fill the silo to its greatest capacity, says the United States Department of Agriculture. The usual length of cutting varies from one-fourth of an inch to 1 inch, but the latter is a little too long, as the pieces do not pack so readily in the silo, and they are not so completely consumed in feeding as the shorter lengths.

Hunters and smokers annually start over 32 per cent of the forest fires in California. Preach and practice care with fire when in the woods.

Kid Kilowatt Aids Doctor and Nurse

New Union Hospital at Fresno is Model of Electrical Convenience and Equipment

THE Union Hospital, situated at the entrance to Kearney Boulevard, Fresno, was opened on April 1st, and the first four months of its existence presage a most successful career for the institution.

The first unit only has been completed, the entire plan calling for two more units. The second unit will be built during the coming winter. The present unit has a capacity of 42 beds, and since its completion it has at all times been full to capacity. In addition, it has three operating rooms, offices, kitchens, X-Ray rooms and all of the other necessary adjuncts to a modern hospital.

The equipment is the last word in up-to-date-ness, which fact is all the more emphasized when one comes to know that the plant is "electric" from bow to stern.

Each room is lighted by a ceiling unit operated by a wall switch, and is also equipped with two convenience outlets and one heating outlet, making it possible to control absolutely the lighting, heating or cooling of any room to the desired temperature. Individual baths are equipped with hot water tanks electrically heated. A signal system operating off the 110-volt circuit is controlled by a switch at the patient's bed. A signal is also placed at the side of each cot in the ward. The kitchen is electrically equipped with range, and hot water heater.

The operating department is provided with an X-Ray equipment, electric sterilizers and a specially designed flood lighting system for night operations.

The plant is owned and operated by The Union Hospital Association of Fresno, as a necessary part of their "health insurance" plan. The Association is now in the fifth year of its existence, and during that time has been furnishing medical, surgical and hospital care to its members for the payment of a monthly fee of \$1. Prior to the completion of its own hospital plant, the Association was forced to care for its members at other institutions, and the new hospital greatly facilitates the working out of the scheme. In addition to caring for

sick and injured members free of charge according to their membership certificates, the new hospital has received generous patronage from non-members and from the other physicians of Fresno, and is assured of a large measure of financial success.

The Association is a corporation, in which stock is held by over three thousand residents of this section, mostly among the laboring and salaried classes. It is not necessary to own stock in order to take out a membership and share in the health insurance features, these being open to anyone upon the payment of a small initiation fee and the monthly dues thereafter.

There are many advantages in electrical equipment for hospital work, and no type of heating and cooking is so well adapted to the rigid enforcement of sanitation, the maintenance of even temperatures, and to the instant demand of vital emergencies. Neither gas, steam nor hot water fulfill hospital requirements nearly so well. The management of the Union Hospital realized this, and decided upon the "juice" in preference to other types of heating, cooking and sterilizing, and they did so by putting cost of operation into the place of second consideration. However, experience has proved that electricity is as cheap as, if not cheaper than, the other forms which have been utilized—and the added advantages remain as a net gain.

The stockholders and officers of Union Hospital Association feel that they have accomplished three things of distinct community benefit:

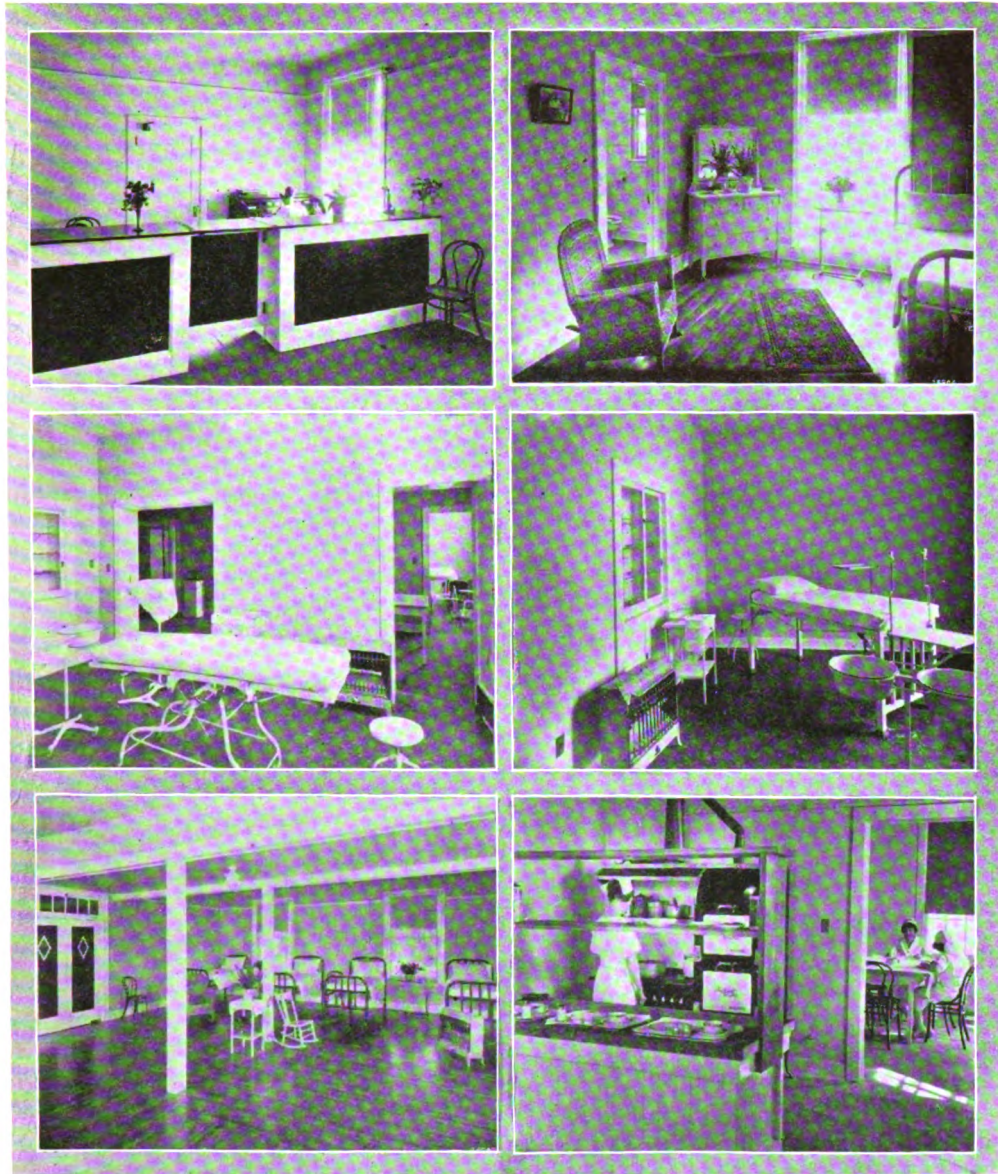
First, they have demonstrated the practicability of furnishing medical, surgical and hospital care to the working and salaried classes upon an insurance basis for a slight monthly fee.

Second, they have added to the hospital facilities of the San Joaquin Valley.

And, third, they have demonstrated the entire feasibility of complete electrical equipment in hospital construction.

The officers of the Association are:

President, Glenn M. DeVore, attorney and legislative commissioner of Fresno City.



INTERIOR VIEWS NEW UNION HOSPITAL.

Top.—The office gives the impression of neatness and efficiency.

Center.—The operating room is exceptionally well lighted by daylight and by electricity.

Below.—The ward is airy and comfortable. Each cot has individual signals.

Top.—The private rooms are delightfully inviting and comfortable.

Center.—The maternity room provides for every requirement.

Below.—The electrical kitchen makes possible the preparation of proper food.

Secretary, Walter C. Adkins, business representative of the Fresno County Building Trades Council.

Treasurer, Wm. Glass, owner of the Fresno Evening Herald and the Fresno Republican Job Printery.

Trustees, Wm. Glass, Bart Harvey,

W. C. Adkins, Dr. Edwin L. Mott and Dr. Geo. H. Sciaroni.

The staff physicians are Drs. Mott and Sciaroni; Philip K. Carnine is in charge of the membership department; and Mrs. J. C. McClure is superintendent of the hospital plant.

Le Grand Substation Completed

A New Type of Station Designed for Future Expansion Will Take Care of Northern Districts as They Develop.

By H. S. MINOR, Superintendent, Electrical Construction

SAN JOAQUIN Power has recently placed in service a new substation which is different from any previously installed in that it is an all outdoor construction with the exception of the relay and meter house. It is located about three miles north of Minturn and is known as the Le Grand Substation, as it serves the territory adjacent to this town. The 110 KV line between Kerckhoff Power House and Merced Substation passes by this point which is twenty-eight miles due south of the site of the Merced Irrigation District dam and power house at Exchequer.

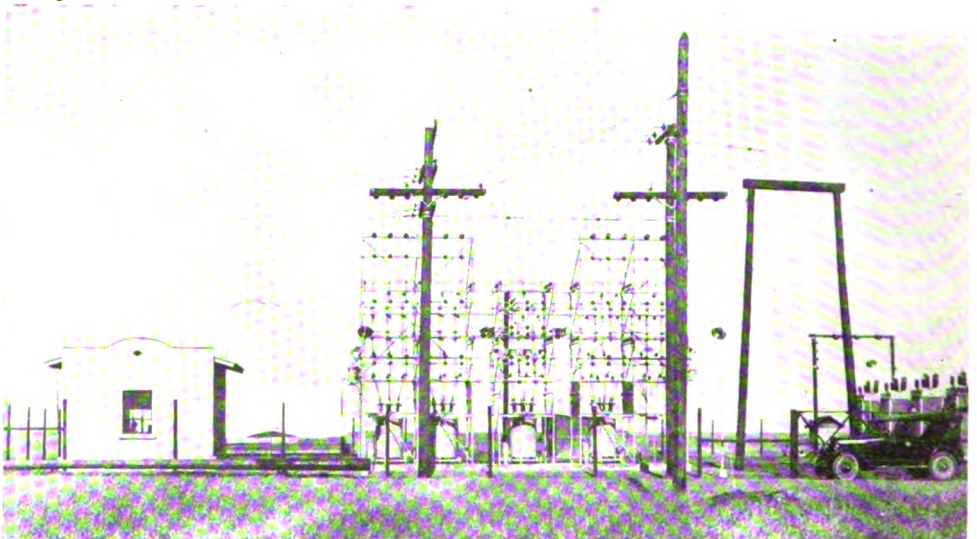
This new substation at Le Grand will eventually become one of our most important substations when the power developed at Exchequer will be fed into the San Joaquin system here. A net-work of 110 KV and 60 KV transmission lines as well as 11 KV distribution lines will radiate in various directions from the new Le Grand substation.

As a great amount of power will be handled through this station, with large

generating stations feeding into it, switches have been installed sufficient in interrupting capacity to meet future needs. Because indoor switches are expensive and require costly cell structures to properly install them and their buses and must be enclosed in a large substation building, the outdoor type of substation with a small relay and meter house was decided upon as best answering the requirements. An outdoor type of switch was selected and a pipe structure designed to support the 11 KV buses and disconnects as well as the potential and current transformers for the metering equipment. This structure is built to accomodate the bus switch and four feeder circuits but can be extended for several more as needed.

A fireproof building 16 by 20 feet with brick walls plastered inside and out and with concrete floor, gives ample room for present and future switchboard and relay equipment as well as storage batteries and telephones.

The oil circuit breakers open automatically when there is trouble and are closed



General layout of the Le Grand station building, pipe rack and transformer bank of 1500 KVA capacity. It is installed in a temporary manner until such time as the transmission line from Exchequer dam is tied into our system and the permanent transformer bank installed. This present bank is served by the 60 KV line from the Dairyland Substation.

by the station attendant. The tanks are equipped with four wheel trucks so that they may be disconnected and rolled onto a small car on which they may be moved into the substation building for inspection and repairs. A set of chain blocks is installed over a pit so that the switch may be lowered into the pit and the mechanism lifted from the tank. This novel feature removes one great objection to the outdoor substation by providing a quick means for inspection or repair under any weather conditions. These switches are equipped with bushing type current transformers, the secondary and switch control wires being so arranged that they may be disconnected by clips. This method removes the chance of a wrong connection of important control and metering wiring during inspection.

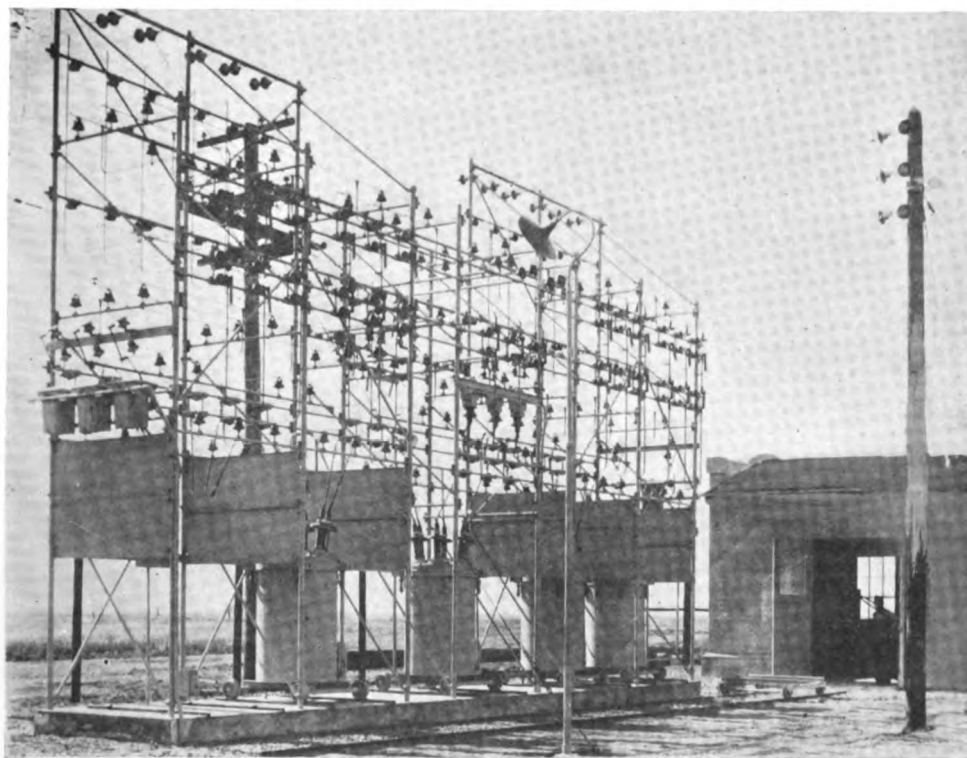
The outdoor substation is more flexible in arrangement than the substation in a building. It can easily be extended from time to time as needed to meet the demands for power, while a building must be built

large enough at the outset to take care of the ultimate installation, all of which can not always be determined.

It is also possible to secure greater clearance between lines with outdoor than with indoor construction, the Le Grand station being designed with an eighteen inch spacing between phases and nine inches to ground on the 11,000 volt bus. This gives an additional safety factor.

A transfer bus with sectionalizing and by-pass disconnects is so arranged that switches or other equipment can be removed from service for repairs or inspection as well as additions made to the structure, without interrupting the service.

The complete installation was made by the Operating Department under the direction of E. A. Quinn, General Superintendent. The design was made in the office of C. E. Schnell and installed under the direction of H. S. Minor with G. L. Perrin as foreman. Construction work was started in February and the station placed in service June 1st.



Details of the outdoor substation oil circuit breakers and disconnect switches, current and potential transformer for metering equipment as well as the transfer car and track for handling the oil switches.

Deep Wells Reclaim Land on West Side

Land Long Thought Worthless Now Producing Bumper Crops by Electric Pump Irrigation

THE story of Fresno County's development is a story of the accomplishments of irrigation. In the days of the Spanish padres, the whole valley was regarded as a hopeless, arid waste, and the most desolate and inhospitable portion of it lay between the San Joaquin River on the north and Kings River on the south, the boundaries of Fresno county.

The vision of M. J. Church was responsible for bringing the waters of the river out upon the plains by means of gravity ditches, and irrigation soon converted the desolate desert into a fertile, richly productive garden. But the gravity ditches carried water to only part of the territory. And until the advent of electric pumping the western section of the county remained still a desert waste, just as it was in the beginning.

LAND THOUGHT WORTHLESS

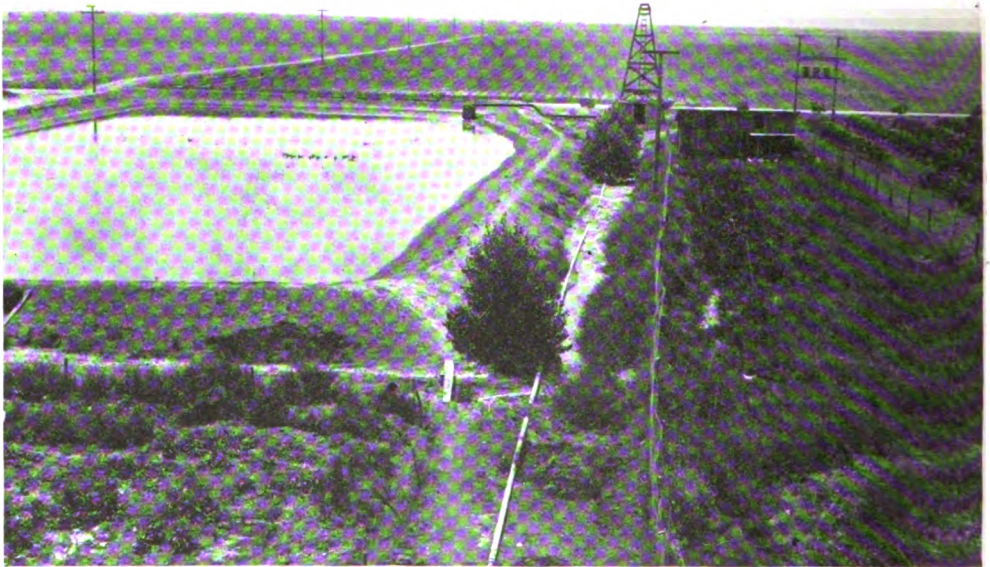
The seeming impossibility of getting water upon the land, the lack of substantial rainfall, and the extreme summer heat,

which frizzled the sparse grass and baked the soil to a deep brown, created such prejudice against this land that until recent years it was held to be almost worthless. Thousands of acres lying south and west of Mendota were regarded as having no value save for sheep grazing, and even in this respect as decidedly inferior grazing ground.

But the miracle of irrigation has come to the West Side lands. The vision that brought electricity to the territory is as great as the vision of Church, the pioneer ditch builder. For in realization, it is reclaiming a land which was once known as "the land that God forgot." A garden is spreading itself across the desert's face, and those who have had the courage to experiment are being repaid with production that is magnificent testimony to the land's fertility.

WATER REDEEMS DESERT

Possibilities in this territory were first demonstrated in the neighborhood of San



Smallest of three reservoirs with a capacity of 1,950,000 cubic feet supplying a constant source of water on Frank Helm Ranch near Mendota.

Joaquin. Here it was found that abundance of water was to be had by pumping. Installation of electric pumping plants solved the problem. Now the development work is being carried on still further to the west, one of the most successful experiments being that of the Frank Helm Company, with its 1,000 acre vineyard planting nine miles south of Mendota. Here Muscats and Thompsons, responding to deep tillage methods of cultivation and to winter irrigation with the electric pumps running almost continuously, produced a small crop in eighteen months. This was in 1922. This year with an added maturity of twelve months they are expected to yield three tons per acre of green grapes or about three-fourths of a ton of raisins.

YOUNG ALICANTES YIELD CROP

More remarkable than this is the promise of 200 acres of Alicantes, which, set out in 1922, will have just eighteen months of growth on September 1st of this year. Ordinarily the vineyardist must wait twenty-four to thirty months before obtaining a crop. But William Rennie, superintendent of the Helm Ranch, estimates that the Alicantes will this year

produce an average of a ton of green grapes per acre.

Four years ago the Helm Ranch was merely a part of the great arid waste of the county's western district. There was no question as to the fertility of its soil, for many experiments have been made, particularly by transporting loads of it to other districts where its response to irrigation could be watched.

ELECTRICITY INSPIRES HELM

The opportunity of putting the ground under actual cultivation did not present itself until the San Joaquin Light & Power Corporation's lines, reaching into the territory, made power available for pumping. Even then there was much doubt as to what could be accomplished. But Frank Helm, a stockholder of the company, a pioneer himself and familiar with all that agriculture has accomplished in its comparatively brief reign in the valley, went ahead with complete faith in eventual success. The prediction of certain wise-aces that the land would absorb water so rapidly that the cost would be prohibitive did not discourage him. He began by installing a fifty horsepower plant and con-



Abundance of water and deep tillage are factors contributing to heavy growth of these vines on Frank Helm Ranch near Mendota.

structing a storage reservoir. Results were so satisfactory and costs so low that three months later two more plants of equal capacity were installed and additional reservoirs built.

PUMPS RUN THROUGHOUT WINTER

Actual planting began with 200 acres of Thompsons and 220 acres of Muscats in March, 1921. These vines were given three irrigations during the summer, the water being shut off for a period of sixty-five days. The pumps were started again in October and kept running until March of the following year, when they were again shut down for twenty days.

In cultivating the vineyard, deep tillage methods are used exclusively. The land is first subsoiled to a depth of from eighteen to twenty-two inches. Following this the land is gone over with a chisel cultivator with eleven inch spikes. The final step in cultivation is discing, which is done with a double-depth disc.

Furrows are then laid on each side of the rows, about six inches from the vines. Water from three storage reservoirs is then carried along the rows in large supply

ditches and delivered into the smaller ditches.

The three pumping plants, each with its fifty horsepower electric motor, are of the centrifugal type direct connected. Each pump throws 1,000 cubic feet of water per minute. Through the irrigating season the pumps are operated continuously day and night, pumping into three storage reservoirs. The largest reservoir has a capacity of 3,350,000 cubic feet of water, the smallest 1,950,000 cubic feet.

RANCH COMPLETELY ELECTRIFIED

The ranch house, home of Superintendent Rennie, is equipped with a three-kilowatt water heater and a three-horsepower ice plant, with a capacity of 500 pounds per day. Bunk houses are electrically lighted and heated, while a pressure domestic water system is operated by means of a three-horsepower electrical pumping plant.

Development of the once desolate and unpromising West Side into green and profitable farms is now a certainty. Frank Helm has shown the way, and success is the reward of his faith.



Thompson vines in the third year show strong growth in soil long regarded as unsuitable for vineyards. The clean cultivation and freedom from weed growth are advantages made possible by well water irrigation.

Soil Moisture Penetration Shown by Tests

*Demonstrations Held at Livingston and Tuttle Under Direction of
J. B. Brown, Irrigation Specialist*

DEMONSTRATIONS to determine exact information on soil moisture were held August 14 and 15 on the ranches of Merrill Wright near Livingston and Milo Rowell, near Tuttle, by J. B. Brown, irrigation specialist of the University of California. These are the first of a series of demonstrations to be held during the next few years in a study of better irrigation methods.

The demonstration August 14 was carried on on the Merrill Wright orchard, near Livingston. This place is composed of a light sandy soil, and the trees are planted on a comparatively steep slope. Three plots of six furrows each were marked off, and the full capacity of a $7\frac{1}{2}$ horsepower pump, throwing 720 gallons of water per minute was run in each of these plots for periods of one-half, one, and five and one-half hours. Trenches were then dug, showing a cross section of each plot, and showing the penetration obtained during each irrigation.

In the half-hour plot penetration was very slight, the water sinking to a depth of about eight inches, and spreading only about one foot on the surface of the ground. As the water penetrated the soil, it narrowed until the moistened area marked the outlines of a bowl.

In the one-hour plot, the water penetrated approximately 16 inches, spreading about one foot on the surface, the deepest penetration being obtained directly under center of the furrow.

In the third plot, where the water had been allowed to run for five and one-half hours, penetration to a depth of five feet was obtained. In showing the cross section, Brown pointed out the tiny feeder roots of the trees at a depth of five feet, proving that of the three irrigations, the last one was the only one which would obtain results.

TUTTLE DEMONSTRATION

The second demonstration which was carried on at the Milo Rowell ranch near



Cross section trenches show the actual penetration of water under known conditions. The soil auger will give the same information to the farmer at any point in the orchard or vineyard.

Tuttle, showed results obtained in a heavy loam soil where the water was allowed to run for periods of two, four and twelve hours.

In the two-hour plot, the water penetrated to a depth of about eight inches and spread over the ground about one foot. In

the four-hour plot the water penetrated approximately 15 inches while in the twelve-hour plot, penetration to a depth of about two feet was obtained, showing that an irrigation period of at least 24 hours was necessary to thoroughly irrigate this orchard.



Group of charts showing results obtained in irrigation demonstrations held at Livingston and Tuttle, August 14 and 15.

Building Electrical Appliances Into the Home

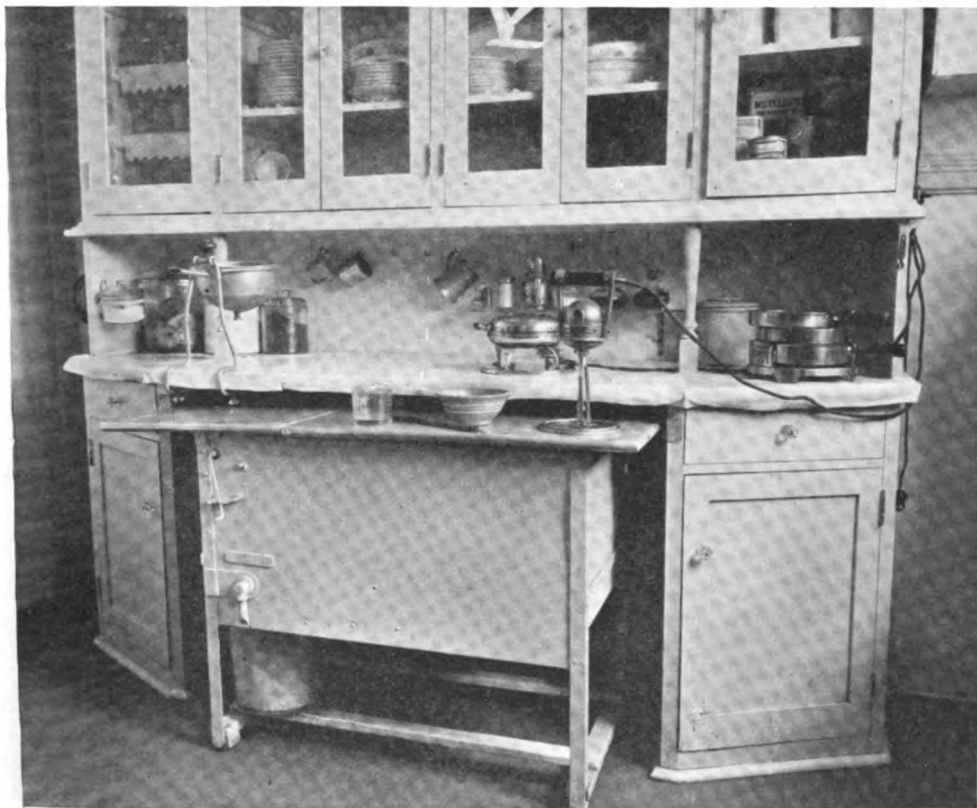
By CLOTILDE GRUNSKY

One of the difficulties of making sales of electrical appliances is that the home into which they are going is not always fitted physically to receive them. There are houses which have no possible location for an electrical washing machine and others have no closet in which the electric vacuum may be kept. Perhaps the greatest sufferer in this respect is the electric dish washing machine, which does not fit into the available space in the average small kitchen—and in consequence is apt to be stood in the center of the floor and shifted from place to place as conditions require.

One California housewife has worked out the solution of her own problem in this respect by building a kitchen cabinet espe-

cially designed to provide for the electric dish washing machine. It is arranged with a convenience outlet at the side so that grill, waffle iron or mixing machine may be connected for the greatest convenience, and with with a central recess into which the washing machine exactly fits. When further table space is needed the machine is slid out to the desired distance—and when in use emerges completely to occupy the center of the kitchen floor. The sides of the opening are lined with zinc at the proper level to prevent any scratching of the wood by the corners of the machine.

The idea suggests what a little co-operation between architects and electrical men may accomplish in adding to the convenience of electrical labor saving devices.



In order to obtain the full measure of convenience from electrical equipment it is necessary to build your house so that the appliances will fit in. Here is how one Western woman, Miss Clotide Grunsky, Pacific Coast Editor of Electrical Merchandising, has had her kitchen reconstructed so as to make a real convenience of her dish washing machine. The space-saving feature should appeal to everyone.

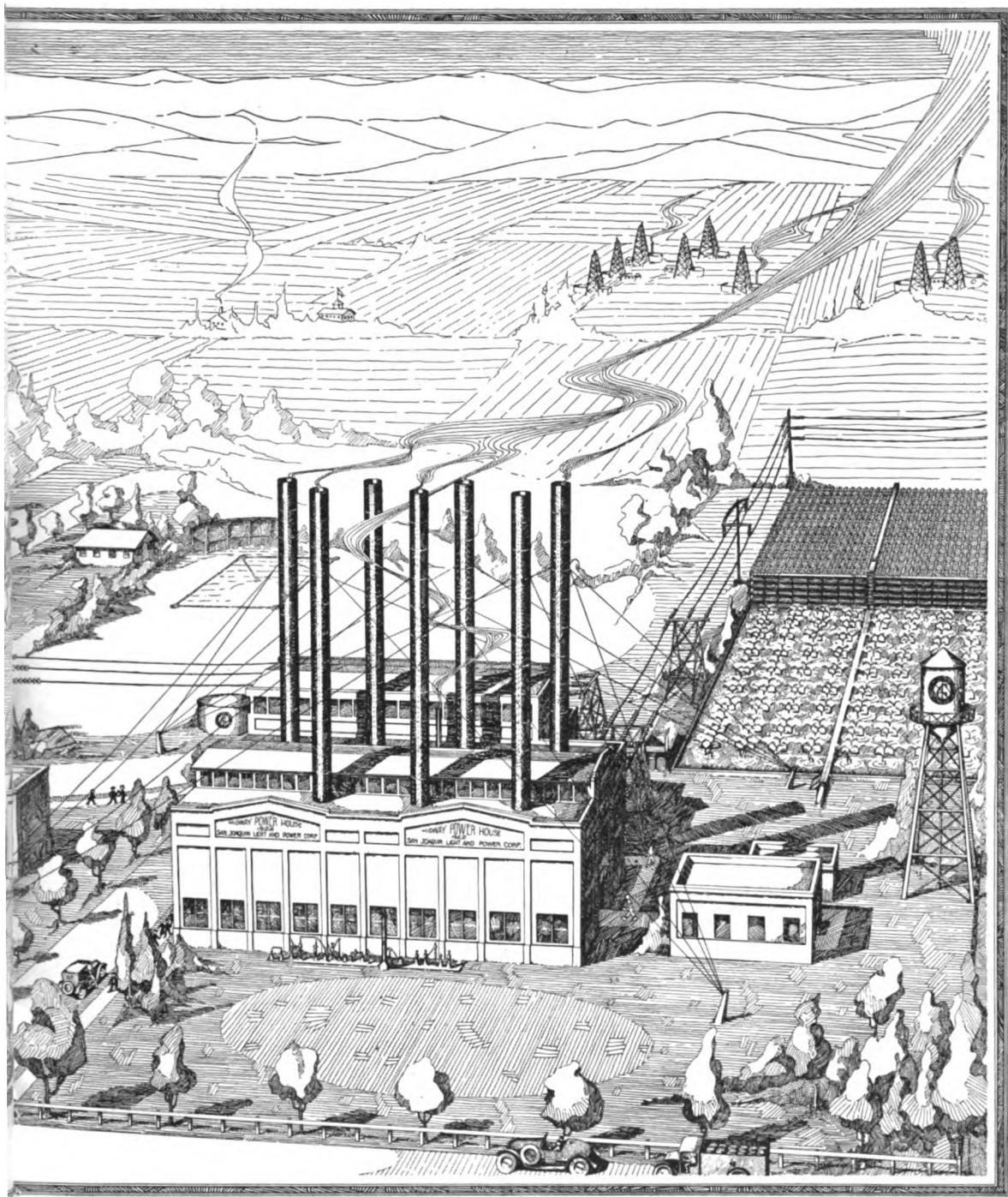
SAN JOAQUIN LIGHT & POWER CORPORATION
MIDWAY-STEAM-PLANT
 Buttonwillow - Kern County - California

This plant is located 25 miles west of Bakersfield on the Taft-McKittrick highway near the Taft branch of the Southern Pacific Railway. Natural gas for fuel is piped through an eight-inch line from the Elk Hills field, nine miles south. In the plant are two steam turbo-generators each of 16,666 horsepower, one installed in 1921, the last completed August, 1922.



The site of the Midway Steam Plant covers 120 acres surrounded on four sides with a street 60 feet wide. To the left are shown fourteen operator's bungalows and garages. A tennis court, club house and baseball diamond are shown in the field to the west of the plant. The building to the left of the plant is a warehouse while the smaller building to the

right of the plant is the machine shop and along the easting systems for reducing the temperature through the condensers. The two types of systems. One is of water trays. The water is



chine shop. Just north of the
 first line of the site are the cool-
 ing tanks. The temperature of the water passing
 through the tanks is cooled by means of
 a tower composed of hundreds
 of trays. The water is spilled from tray to tray, cooling

as it falls to the tank below. The other is by means of a spray
 system, the water being cooled by spraying into the air through
 360 spray nozzles, falling into a tank 200 by 300 and cooling
 almost instantly. The tank also provides a delightful swim-
 ming pool. This remarkable drawing was made by Masis
 Seklemian, a former San Joaquin Power draughtsman.



Published monthly by the San Joaquin Light & Power Corporation at Fresno, California, in the interest of the Consumers, Stockholders and Employees of the San Joaquin Light & Power Corporation.

AL C. JOY - - - *Editor and Manager*
 SYDNEY W. GREEN - - *Associate Editor*

Subscription - - - - \$1.00 Per Year
 Single Copies - - - - 10 Cents

VOL. V August, 1923 No. 8

HORSEPOWER WEALTH

Speaking at a Fresno Country Club banquet to 150 Southern California editors who had just returned from a visit to the great Big Creek power project, General Manager R. H. Ballard of the Southern California Edison Company said that every horsepower of electric energy developed and put into use in California means an addition to state wealth of \$6,000. In other words, the homes, industries, civic improvements, and other factors of development directly affected by each newly-created horsepower will cost \$6,000.

This is an amazing figure, particularly if one follows the computation to the end. The San Joaquin Light and Power Corporation can look ahead in its own plans to the time when there will be 500,000 horsepower on the system in addition to what we are serving at present. Right here is an increase in wealth of \$3,000,000,000 in the ten counties directly served by our lines. One's imagination can scarcely conceive what this will mean in the settling up of our territory, the opening of industries, the building of cities, the increasing of population.

Our own general manager, A. E. Wishon, as far back as 1919, opened up this same line of thought with his famous self-interest story. He showed what every dollar of investment made by a power company means to the community. He showed how every one of these dollars is

followed by the investment of other dollars in other lines. And he showed, too, just how much of each of these dollars directly traceable to power development goes into the hands of the carpenter, the plumber, the plasterer, the architect, the grocer, the butcher, and every other business citizen and trade worker.

It is interesting to speculate on mass advancement and community growth in the light of these figures. But it is even more interesting to speculate on individual opportunity and progress. The great power development program now being carried on in California means an increase in state wealth of many billions of dollars, and in the prosperity this will bring, the individual must inevitably participate.

Is there any factor in California progress approaching electric power in importance, and are there any men whose activities means as much in state up-building as the men of the power industry?

COALINGA WINS

The Prior Preferred Baseball League season has come to a glorious climax, with Coalinga chortling proudly over the winning of the pennant and all the team trophies. It was a splendid triumph, for Coalinga sold far beyond its quota of Prior Preferred Stock during a period when the virtual suspension of oil operations had reduced population and depressed business. Bill Whittington and his team knew they were in a real fight. Selma made a wonderful showing, an extra game between these two teams being necessary to decide the championship. For all contesting teams there is satisfaction in the knowledge that more was done than was originally expected.

And the big satisfaction for all of us is in the adding of several thousand new stockholders. Handling a stock-selling campaign in terms of baseball was a real inspiration on the part of Stock Sales Manager Frank Easton. It got results and at the same time produced a heap of fun and created a lot of organizational interest.

Three rousing cheers are hereby offered Coalinga.

Bring on the next battle!

Wonder how Coalinga would show at football?

NATIONAL PARK VANDALS

Forest rangers are complaining bitterly of acts of vandalism on the part of summer tourists in the national parks. It would seem that civilization has made its strides with mankind collectively only; the individual remains the same primitive egotist that he was in the days of King Tut. The tomb of the Egyptian monarch, recently excavated from the desert sands, is defaced by scratched hieroglyphics, said to be the names of tourists of 3,000 years ago.

We still have tourists of the same sort. They carve their names in the bark of trees, write them prominently in places where they serve to disgust and incense the true nat- 'jvææ. Only recently the name of a prominent college professor was found scribbled on the newly-painted door of a ranger's lookout station up at 10,000 feet. "Ranger Bill," who writes a newspaper column that is mighty good reading, says if he had his way he would make that professor climb to the station and scrub off his personal advertisement with sapolio.

But the name-writers are not the only vandals. Another species of pest prevalent every season delights in shooting holes through the tin guide-post signs. These signs are put up for the convenience of the tourists, so they may find their way. Along comes a tourist with a 22 rifle and more ammunition than brains, who proceeds to perforate the sign till it looks like a colander. The busy ranger eventually discovers it, and has to have another sign made, which another fool with a gun may destroy the very next day.

Tourists of the name-writing and sign-wrecking variety are bound to get into our parks. It is the duty of every person who has proper respect for the parks and real reverence for the beauties of nature to report them any time he has definite evidence of their infractions of park laws and common decency.

KEEP THE FORESTS GREEN

The Forest Service of the United States Department of Agriculture is putting on a "Keep-the-Forests-Green" campaign. It appeals to you to help them suppress forest fires, the "scarlet scourge" of our timberlands. Keeping the forests green means

not only saving of billions of trees, both young and old, with their precious timber, but means the saving of birds and animals in countless numbers as well. Fish, too, are killed when forest fires sweep the country-side, denuding the banks of the streams and bringing heat and ashes. Every year fires burn over 7,000,000 acres of our country's forest land. This is the awful waste that must be stopped if we as a Nation continue to have sufficient timber to meet our needs. This waste must be stopped if we are not to menace our bird and animal life. This waste must be stopped if the American people are to continue to find pleasure and recreation in the woods. This waste must be stopped if we are to encourage reforestation not only on lands that are now wooded but also on the 81,000,000 acres of former forest lands which have been laid waste and which must again grow timber crops. A large per cent of the fires that cause such a tremendous damage are man-made. Will you help keep the forests green this year?

THE LAND OF LIGHTS

Recent statistics show that American homes are becoming electrically lighted at the rate of a million a year. In 1922 1,000,000 new residential consumers were added to the 1921 total of seven and a half million.

The electrical industry in the last seven years has increased the number of customers on central station lines by more than 6,000,000. Today electrical energy is being transmitted as far as 400 miles to meet the demands for service.

There were at the end of 1922, 10,000,084 central station customers in this country, of whom 78 per cent were residential consumers of light and power, 17 per cent users of industrial lighting and 4 per cent industrial power consumers. The remaining 1 per cent is not accounted for. This total of more than ten million was divided numerically, as follows:

8,467,600 residential customers.
1,896,900 industrial lighting customers.
429,584 industrial power customers.

Why spoil your hunting trip by having to face the Judge for carelessly setting the woods on fire?

Notes from the District Managers

High Spots of District Activities That Reflect Business Condition in San Joaquin Power System

FRESNO DISTRICT

PAUL B. WILSON, *District Manager*

Business conditions during the month of August were slightly improved over July. The usually heavy green grape shipments have had a bouyant effect while weather conditions have continued favorable for dried fruits up to September 15. Reports received from eastern markets condemning certain shipments of green grapes had a depressing effect on the market. The shipment of poor fruit has proven a costly experiment in many cases. The quality of fruit leaving the San Joaquin Valley is our greatest asset, and it is to be regretted that the present eastern market should be destroyed by shipments of poor fruit. We have the finest soil products in the world here in the San Joaquin Valley and it is to the interests of every grower and shipper to permit nothing but the best to leave for foreign markets.

Most of the peach crop is now either in the warehouses or in sweat boxes and will be safe from rain. Thompsons on the average are safe from rain damage while the picking of Muscats is now in progress. The crop is very good in most localities despite the heavy mildew caused by the protracted cold weather during the early summer.

Although a large amount of line construction work is in progress in the city of Fresno, especially in correcting infractions of General Order No. 64, we have had very few interruptions in the city service. District Foreman Art Hensley reports that he feels we are constantly living up to our motto: "Continuous Service."

During August there were connected in the Fresno District 169 lighting consumers, 8 heating and cooking consumers, 17 industrial power consumers, and two agricultural power consumers. Since January 1 the net increase in the heating and cooking load is 1284 kilowatts, while the industrial power load has increased 2735 horsepower and the agricultural power load 382 horsepower.

Applications for agricultural power service have increased slightly, which leads us to believe that many farmers will be in the market for electrical installations as soon as they are assured of the return on their crops.

MADERA DISTRICT

F. V. BOLLER, *District Manager*

New business has been somewhat quiet during August although during the past week a number of new applications have been secured for pumping plants.

During the month one crew has been at the Knowles quarry rebuilding the distributing system at that point, and installing facilities for serving thirty-five cottages and the main building of the Raymond Granite company. In the field superintendent's home an electric range, hot water heater and air heaters will be installed. Other hot water heaters are to be installed in the laundry and in the recreation hall.

The voltage regulator recently installed is greatly improving the voltage conditions in the Madera District, very few complaints having been received since it was placed in operation.

A large portion of the Sierra Vista tract recently opened near Chowchilla, has been sold out according to the sales manager who is handling the sale of the new tract. Several new homes are in project this fall on this new tract. The grape crop now being harvested on this land is the finest obtained for many years.

Work of dismantling the old building of the City of Madera First National Bank is in progress preparatory to the erection of a magnificent new home for the bank at a cost of \$100,000.

A new store room building is under construction at Chowchilla for Mr. Hendrix, who has extensive land holdings in that section.

A survey of the industries of Madera and vicinity is being made under the direction of the Madera Chamber of Commerce. Questionnaires have been prepared from which will be compiled accurate data on present industries and future possibilities.

During the month fourteen prospect cards were made out for eight motors representing $83\frac{1}{2}$ horsepower; 12 kilowatts in air heaters and seven kilowatts in lights. Of the above prospects and those previously made out we have closed contracts for $67\frac{1}{2}$ horsepower in motors and six kilowatts in lights.

Two petitions representing large extensions in country districts are being worked out at this time which will probably be closed within the next few weeks.

Within the next month all traces of the old Madera water plant will have been removed and a lawn planted on the site.

During August, 67 horsepower in agricultural power and 7 horsepower in industrial power were connected in the district. A total of 24 kilowatts in combination lighting, heating and cooking were also connected during the month.

DINUBA DISTRICT

HAZEN G. REDFERN, *District Manager*

Business outlook is rather uncertain at the present time as our fruit is not selling on the market as it should. The mildew has caused some of the green fruit packing houses to close, temporarily. The California Peach and Fig Growers started operation this month, employing 400 people.

Two business houses, which were reported closed last month, have reopened under new management.

During the month of September we finished the following jobs and estimates for the Orosi Farms, using 3 H. P.; and a tie-in line of heavy No. 2 wire from the substation south to Dinuba.

We have three crews working on clearing up infractions in the district.

We have a consumer who just recently completed wiring and illuminating his store and windows. This consumer is very well pleased with the illuminating effect he gets. He says that his electricity is the cheapest thing he pays for.

Green fruit packing houses built in the Dinuba District during the month of August include a building costing \$2000 for the Federal Fruit Distributors, the Cutler Packing Company at East Orosi costing \$2,700, the Tracey Waldon Fruit Co., at Dinuba costing \$2,000, and the Alta Fruit Company, Dinuba, costing \$900. These new packing houses are to receive

our service for lights and small motors.

An electrolier system consisting of fourteen poles is under consideration by the business men and the Chamber of Commerce of Orange Cove.

SAN LUIS OBISPO AND PASO ROBLES DISTRICTS

CHAS. J. KELLY, *District Manager*

Work on rebuilding the San Luis Obispo city lines and the town of San Miguel lines is now progressing very rapidly, and should be completed by October 1st. The rebuilding of San Luis Obispo city lines will eliminate both telephone and power poles from several of the main business streets, and will not only improve the appearance of the city, but will greatly improve our service. A main loop of 1/0 copper wire is being placed around the town. The cross-town feeders will occupy every other cross town block, and tap into the property lines. The Pacific Telephone & Telegraph Company are also spending a large amount of money to improve their service. They will occupy several poles, jointly with the Power Company.

The new line to serve the Southern Pacific rock crushing plant at Santa Margarita was completed August 31, and should be in full operation by October 1. This new rock crushing plant will supply rock for ballast for the entire coast division of the Southern Pacific.

During the month of August there were connected 46 lighting consumers, 4 power



Beatrice Olden, Chief Clerk in the Paso Robles Office of the Midland Counties Public Service Corporation, winner of the diamond service pin for the largest number of new stockholders sold by any woman in the organization. Mrs. Olden is demonstrating to District Manager Chas. J. Kelly and District Foreman C. A. Karling how a sale of stock should be made.

consumers, requiring $23\frac{1}{2}$ horsepower, and one heating and cooking consumer.

New building is very active in this section. Twenty building permits were issued during the month at San Luis Obispo and ten at Paso Robles, while thirty new buildings are reported from the suburban districts.

Pismo, Morro and other beach resorts are the mecca for thousands of summer visitors at this time of year, these resorts reporting the largest month ever recorded.

The street improvement program of the City of San Luis Obispo is progressing nicely, two of the main business streets having been ordered paved, the work to begin within one month. San Luis Obispo is rapidly "dolling up" preparatory to taking her rightful place as one of the most desirable and delightful residential cities in the state. With new highways opening up travel to and from the San Joaquin Valley and from the north and south San Luis Obispo will receive more and more attention from the many thousands of new settlers coming to California.

SAN JOAQUIN DISTRICT

E. G. STAHL, District Manager

The month of August started off in new business very quietly, but finished with a rush.

We signed during the month something over 150 K. W. in cooking and heating business, which is the largest month to date for this type of business. Among the new consumers secured was the Kerman Union High School for 40 K. W. in cooking and heating equipment. This high school has installed seven electric ranges in their Domestic Science Department together with a water heater and some air heaters for the offices. I believe this class of business is the best advertisement for electric cooking that we can secure as it educates the younger generation to the features of electrical cooking. During the month we also signed up and connected the Electric Grill at Kerman. This is the second completely electrically equipped restaurant in the San Joaquin District.

Contracts for the pumping plants have been let by the Stinson Irrigation District to be ready for service about November 1st of this year. This district will use twenty 20-H. P. pumping plants, with

probable additional installations next year. L. A. Nares, who is the principal land owner in this vicinity, has started a colonizing project by which he expects to bring two hundred families on to this tract of land this fall. The owners advise dairying and alfalfa raising rather than vines and fruit. They expect to make this vicinity one of the best dairying sections in the state.

Indications all over the district point to better business conditions for the balance of the year.

K. M. J. CONGRATULATED BY FAR OFF RADIO OPERATORS

From Silverton, Oregon, comes a letter of appreciation for the wonderful Fresno Municipal Band concerts that have been broadcasted by K. M. J. during the summer months every Sunday evening from Court House park. The letter is from Burnett Haberly and he says, "Received Municipal Band concert broadcasted by K. M. J. this evening with wonderful clearness and considerable volume. Have never heard better modulation than yours and have heard more than 150 stations located all the way from Pittsburg, Atlanta, and New Orleans to Salem, Oregon."

Another letter from aboard the United States Shipping Board Steamer "Memnon" off Cape Flattery, Juan de Fuca Straits, gives a remarkable testimonial to the excellence of K. M. J. broadcasting. Purser L. E. Grogan writes, "Almost abeam of Cape Flattery, which distance from Fresno is approximately 900 miles, and signals are coming via inland route. Your modulation is indeed good for I can hear K. O. P. broadcasting the Fairmont concert which loses considerable strength. You are coming in louder than K. P. O. and much clearer."

"The boys in the Municipal Band are to be congratulated for their excellent concert and Fresno surely should feel proud of them. Seven of us sea-faring adventurers and radio enthusiasts are seated about the loud speaker listening to your strains. More power to K. M. J."

Every week brings new words of commendation and appreciation for the broadcasting of the Municipal Band concerts by the San Joaquin Power station K. M. J.

New Power Line for Santa Ynez Valley

*Midland Counties Public Service Corporation to Supply Power to Coast
Section Rich in Possibilities.*

IMMEDIATE construction of power line extensions throughout the Santa Ynez and Los Olivos valleys, with an investment representing approximately \$100,000, is announced by District Manager A. D. Church of the Midland Counties Public Service Corporation, upon authorization from General Manager A. E. Wishon.

The new lines will give electric service to the towns of Buelton, Solvang, Santa Ynez, and Los Olivos, as well as to agricultural territory approximating 50,000 acres.

Service to the towns is to be chiefly for lighting, heating and cooking. The big load of electricity, however, will be for pump irrigation on the farms.

According to District Manager Church work on the new lines is to begin about October 1st, when delivery of material will begin, and will be completed within sixty days. Construction work will be under the supervision of District Superintendent D. D. Smalley.

LOOKING TO FUTURE

"We have contemplated this development for a long time," says Mr. Church, "but have not until now felt that the investment was justified. This does not mean that the business in immediate prospect will be profitable, but we are looking to the future, believing that electric power will be the means of developing one of the richest agricultural sections of California.

"The district has been held back through lack of water. On those tracts on which water has been developed splendid crops are always produced. Plenty of water underlies all the land, the lift is not great, and electricity will make possible irrigating practically all of it at cheap cost. Many thousands of acres now given over to bean growing can now be planted to alfalfa, orchards, vineyards, sugar beets and other more profitable crops.

DAIRYING PROFITABLE

"Particularly is this land adapted to alfalfa growing, which means that the great possibility is in the dairying industry. In many sections of the state where cow testing associations have built up dairy

herds to a high degree of efficiency, dairying has become highly profitable. Last year's return to California from its dairy products was in excess of \$97,000,000. Yet statistics recently made public show that we do not begin to supply the demands of our own state, millions of tins of condensed milk and millions of pounds of butter, and cheese being imported annually. A market for our dairy products is ready at hand. Sugar beet growing also offers great opportunity to the farmers of the upper Santa Ynez district, the soil of which has been demonstrated as peculiarly adapted to this purpose.

"With the settling up of the farm lands the towns inevitably must put on new population. We look to see the Northern Santa Barbara County district within a few years one of the most prosperous sections on the entire Midland Counties system."

Several subdivisions of farm lands are shortly to be placed upon the market, according to report in the Santa Ynez valley. One of these is the 15,000 acre tract of the Santa Ynez Land & Development Company, which a real estate firm is to offer in subdivisions of 10, 20, 30, 40, and 50 acres. These tracts are to be adjacent to the new power lines, and pump irrigation by electricity is to be one of the sales features.

MAKE "CARE WITH FIRE"

SLOGAN IN MOUNTAINS

"Help us save the forests from destruction by fire," is the plea of the National Forest Ranger to every vacationist who loves the trees and the mountains. "Don't build a fire in a National Forest unless you have a campfire permit, and be sure to put it out before you leave it. Be careful with your lighted matches and cigarettes. Make 'Care with Fire' your watchword when in the mountains."

IT CERTAINLY WOULD

Mamie swears she has never been kissed by a man.

Isn't that enough to make any girl swear?

Among the District Reporters

"Just like a letter from home." Little news notes and gossip gathered here and there

FRESNO

G. L. VAN BUREN, *Reporter*

Mr. and Mrs. J. E. Barrett have returned from a vacation spent in the village of San Francisco and thereabouts, just in time to get their names in the magazine.

It is with much regret that we report the resignation of Frank Cross, to take effect October 1. Frank has been with us for the last four years, coming out of the army to work as a counter collector. He was promoted from this position to Assistant Head of the Consumers' Department and was later promoted to the New Business Department. He has made many friends in his contact with the public and fellow employees and his leaving will be keenly felt. One of the best tributes that can be paid to anyone by his fellow workers is in the simple fact that they will miss him when he leaves, and without exception, we will all miss Frank. He plans entering business for himself in Los Angeles. We can only wish him success in his new enterprise.

Miss Rhoda Welts, one of our Holterith operators, is also leaving the employ of the company. Strangely enough, her destination is given as Los Angeles. A rigid investigation has disclosed nothing which leads us to believe that her departure at the same time and for the same place as Mr. Cross is anything more than a mere incident. Miss Welts' friends will miss her.

"Doctor" Nira G. Letchworth recently rendered first aid to the injured to Miss Ann Meginnity of the Consumers' Department. Miss Meginnity severely cut her finger in trying to bob her hair. She finally gave it up as a bad job.

An interesting piece of money floated into the cashier's cake a few days ago. Some clever person had pasted well-cut "5s" over the original "1s" on a one-dollar greenback. It would appear that some thoughtless person is planning a trip to Leavenworth, Kansas, at the expense of Uncle Sam.

Miss Margaret Freeland of the Accounting Department is no more. On September 8th she traveled all the way to San Francisco to join in the "wholly" bonds of padlock with Mr. Harold B. Henry. The misguided couple spent a week between San Francisco and the Southern Beaches and are holding open house to their many friends at 1552 Calaveras Avenue, Fresno.

The Accounting Department gave a surprise party on Mrs. H. B. Henry, nee Freeland, on September 19th at the home of Mrs. Fannie Williams at 217 Abby Street.

Mrs. Ayers Marley and Mrs. Albert Maher spent the Labor Day holidays in Long Beach and Los Angeles. They had their husbands along so nothing exciting is to be reported.

Miss Dorothy Thompson, of the Accounting Department, left September 15th for a visit of three or four weeks with her mother in Kansas.

Mrs. Marie Haile, of the Accounting Department, has recovered from an attack of diphtheria and is with us again.

Frances Slinger and Edythe Hanson have left the company for Los Angeles. We will have to investigate this Los Angeles business as too many of our old friends are heading that way.

Mr. and Mrs. Tom Smith are spending their vacation in San Francisco. Tom has promised to hold tightly to Mrs. Smith's hand when crossing the car tracks, and expects to be back on the job soon.

"'CEPT ONE"

To Garrett Van Buren's a new baby came,

Miss Beverly Jean is the little one's name. Says proud Daddy Garrett, "No girl in the town

Is equal to her!" And the other dads frown

And answer when he repeats, "Equalled by none!"

"Pooh! Pooh! The birth notice says plainly 'Sept. 1.'"

A miscellaneous shower was given in honor of Miss Hazel Larson, by Miss Shasta Hyatt and Miss Violet Larson, at the home of Miss Hyatt.

Miss Larson is to be married soon to S. F. West, of Seattle, Washington, where the couple plan to make their home.

Miss Larson has for the past two years been stenographer in L. R. Duncan's office.

Among many beautiful gifts, she received an electric percolator, given by the employees of Mr. Duncan's Department.

DECORATED BAT PRESENTED TO CHAMPION "BATTER"

The girls of the Fresno office accounting division presented Mrs. N. G. Letchworth with a baseball bat decorated with purple and gold ribbons and inscribed with suitable verses in congratulation for the wonderful record she has made in the stock sales campaign.

The verse is as follows:

Swimmers can swim
without aid,

A hole can be dug
without a spade,

Fish can be caught
without bait,

The world's record
batting average is
428.

You've beaten them
all, it's safe to say
And when batting averages
are computed today,

You have batted a
thousand, and off
goes my hat

To any ball player
doing so without a
bat.

To Mrs. N. G. Letchworth,
With S. O. S. Team,
San Joaquin Power League,
Season 1923.

Forest fires drive away game and spoil
the fishing. Be careful with your smokes.

FRESNO CITY WATER CORPORATION

Mr. and Mrs. C. H. Weekes have returned from a two weeks' vacation spent on the Coast. It is reported that there were no "Cats" to be found in the vicinity of Mr. Weekes' camp when he started home.

W. F. (Bill) Leavitt, Construction Foreman, was seashoring during the first two weeks in September. No definite answer was given when asked where he could be reached in case of a leak in the mains. Tom Hurley looked after Mr. Leavitt's work while he was away.

Harold Snedeker, our plumber and service-man, is spending his two weeks vacation deer hunting.

S. E. Dillon and family have returned from a delightful two weeks vacation spent in Long Beach and Santa Barbara.

Miss Edythe Hanson has resigned her position with the Water Company and after spending a few days in San Francisco she expects to locate permanently in Los Angeles. Employees of the Water Company presented Miss Hanson with a handsomely mounted gold fountain pen in appreciation of her work and good fellowship while with them. Needless to say Miss Hanson has our best wishes.

Miss Marie Ross and Mr. Chas. W. O'Melveny are new employees with the Water Company. They are filling the vacancies caused by the resignations of Miss Hanson and Wm. F. Barnickol of the Engineering Department.

Mr. C. B. Jackson was elected Chairman of the Special Japanese Relief Fund Committee to put over an intensive drive which was very successful, inasmuch as the organized machinery which was set up brought forth over 250 workers, all being accomplished in two days time. From 12,000 to 15,000 people had been solicited for this "Humanitarian Relief Fund." Mr. Jackson makes the following statement, "I wish to state that the exceptional showing made by the employees of the Water Company and the Power Company organizations was one of the most gratifying events of the results of the campaign, and I wish to take this opportunity of personally thanking all our organizations who contributed to make my part of this work a success."

*MADERA*MARY DECHAINED, *Reporter*

This office force certainly misses Bertha Wood. She has left us in search of wider knowledge at the Lux Domestic Science School in San Francisco. She tells us that she wants to be a demonstrator, hence the domestic science. Well,—!

Edna Lewis stalked into the office one Monday morning with the serene "I sure had a swell vacation" expression on her face. She spent two "grand" (the adjective is her own) weeks in Santa Cruz and San Francisco and wants it known that she drove her car all the way.

G. V. Footman and his wife and little daughter, Aileen, spent a pleasant two weeks at several coast points. We didn't have to ask him if he enjoyed himself. Of all the sunburn!

More vacation—but not so much of it. Poor Bob DeChaine's vacation was not so perfect on account of a sick finger. Too much baseball. Aside from that, he had some time in San Francisco.

Paul Bays, one of our energetic linemen, was severely bitten by a black spider, while working on the Knowles line. He has the heartfelt sympathy of all the girls in the office, especially Millie Gordon's. She has a strange aversion to black spiders.

A new employee, Mary DeChaine, has been added to the office force to take Bertha Wood's place. She likes "it" very much and wonders how "it" likes her.

The fish must be biting pretty good, at least it seems that way. Several parties made up of San Joaquin Power employees have been spending Sundays on the river—fishing, of course.

Now comes the news that G. R. Koenig slipped and slid down a pole about thirty feet from the ground, meanwhile lacerating his little finger on the way down. At the present writing, he has forgotten all about it.

One quiet, peaceful Monday, the office was thrown into a turmoil, or worse yet, an earthquake and volcano rolled into one, by the discovery of a black cat hidden in a locker. Wild? Just ask Francis Clevenger, the discoverer. George Footman made himself a hero by inviting the cat to leave. His honeyed coaxings, however, were to no avail, and it was at this point that Francis turned wild herself. She shrieked and the cat then made a dash for liberty

through the office, leaving behind a trail of pop-eyed and hysterical girls and an equally pop-eyed and hysterical bunch of men. Francis hasn't been able to look a cat in the eye since then.

Millie Gordon spent her vacation in that "wild, wicked city," San Francisco, while Francis Clevenger enjoyed herself as much in Wawona, "the great outdoors, where men are men."

Fate seems to be against some of our linemen. Ronald Taylor had his leg badly crushed while riding on a truck. He reports that his leg is as good as new now, and is back on the job.

Earl McCrary and George Footman have so much energy when it comes to selling stock that they don't know what to do with themselves. Why, George even talked three-hour old Jack Brammer, Jr., into buying a share. You'll have to admit that's going some—now, isn't it?

Ralph Shupe, is now running at large around the country, in a new Chevrolet roadster. Result; dead chickens and admiring glances from the girls in the office.

*BERNIE OLESON BITTEN BY
SNAKE AT KINGS RIVER*

Bernie Oleson of the Kings River hydrographer's crew had a narrow escape from a rattle snake bite August 18. While fishing on the North Fork of the Kings River about half a mile above Williams crossing he reached for a limb of a scrub oak to balance himself and in so doing permitted his hand to come in contact with a rock where a large rattler was basking. The snake gave a warning rattle and sprang like a flash. Bernie drew away his hand, but too late to avoid the sting of the serpent on the little finger of his right hand. Without becoming the least bit excited, Bernie made his way to camp where he announced his injury. About that time several physicians who were vacationing in the neighborhood came into camp and immediately administered hypodermic injections within five minutes after the bite.

The patient was removed to Balch Camp hospital where he remained under the care of Dr. J. T. Gardner, resident physician. Beyond a slight nausea after the hypodermic injections, Bernie suffered no serious consequences from his experiences.

BAKERSFIELDJOHN A. WARE, *Reporter*

Walter Keller has returned from an enjoyable vacation passed at Pimso.

James Hothersall, T. M. Lee, Ole Brevig and S. Coronado are enjoying their annual vacation at Los Angeles and the various southern beaches.

Art Theile is perfectly normal these warm summer days until he hears someone yell "Green Grapes."

The noted railroad superintendent, V. N. Mickelberry, has returned from his vacation and informs us we will read an account of his trip in the Geographic Magazine. He talked knowingly of the Grand Canyon, many interesting places in New York, the many things he saw in Kansas, spoke of all the old friends he met at Witchita. Mrs. Mickelberry had not heard of these wonder stories and reports that "Mick" wandered as far south as Brundage Lane and north to the Standard Oil Tank Farm and had a hard time hiding from anyone who might give him away.

A crowd of young folks took advantage of a cool moonlight evening and motored to Bellevue weir for a swim and watermelon feed. Among those sharing the evening were Zelma Sledge, Jeanette Marvin, Theresa Kelly, Chloris Bender, Ruby Martin, "Jimmie" Davis, Dot Ponton and Lindsay Lyons, "Monk" Harmon, L. Porter, Lee Summers, Ray Sylvester, Bill Bannister and Ogden Gaddy.

Mr. and Mrs. Van Laycock are enjoying the last days of August with a motor trip through southern California.

A. K. Carson has returned from an interesting motor trip, covering two thousand miles through Northern California and Oregon in two weeks. Mrs. Carson accompanied her husband on the trip and their itinerary included stops at Klamath River and Falls, Crater Lake, The Dalles, Grants Pass and Crescent City. They motored from San Francisco down the coast to Santa Barbara on their return from the north.

Lee Summers is back on the job again after an exciting week passed at Long Beach.

Mrs. H. M. Crawford was a visitor at the Bakersfield offices in August. Mr. Crawford, who was formerly commercial

manager for this district in 1916, is now sales manager for the Pacific Gas & Electric Co., San Francisco.

E. J. S. Baldwin is motoring about California enjoying a several weeks vacation.

Clarence Howard has returned from a two weeks visit with friends in Los Angeles. Bennie Rickman also visited in Los Angeles and Dinuba during August.

BAKERSFIELD STEAM PLANT

August was the big vacation month in the steam plant, ten members of the crew having hied themselves to the hills, or the beaches, or remained at home to shingle

**BAKERSFIELD GIRLS ARE HUSTLERS.**

The remarkable stock selling campaign conducted by the Bakersfield district during the recent Prior Preferred League Baseball contest has attracted attention throughout the San Joaquin Power organization. A snap shot taken of a sale being made by one of the girls in the Bakersfield office gives some idea of how the success was achieved. The picture shows Miss De Nize Lohman signing up a new stockholder who made the purchase without leaving her automobile. The Bakersfield girls took a keen interest in the campaign and contributed their full share to the success of the contest in the Bakersfield district.

the garage or mow the lawn. They are J. H. Miller and Wm. H. Elliott, engineers; Wm. Aspttle and O. B. Berges, firemen; W. F. Kennard, operator; J. Copher, watchman; Fuller Davis, transformer repair man; A. W. Fritz, gardner; J. A. Ehuyler, warehouse foreman; and F. L. Houser, yard foreman.

H. T. Shirley, assistant efficiency man, has gone east for a two-months' visit to his old home in Panfield, N. J.

A. A. Wagstaff, for two years machinist at the Bakersfield Steam Plant, has left the service of the company to engage in business for himself at San Francisco.

The stork visited the home of Chief Engineer R. L. Lewis August 24 and left a seven-pound baby girl. This gives Mr. and Mrs. Lewis a full house,—three girls and two boys.

ELECTRICAL DEPARTMENT

Harold Hunt, who for the past six months has been on a tour of the state of Missouri, is back at his old job, taking the place of Earl Crow. They all come back.

Miss Gladys Ikenberg, of the consumers' department was given a farewell surprise party Friday evening upon the eve of her departure for San Francisco, where she will remain several months. The affair was replete with games, dancing and refreshments, and was attended by Lillian Broker, Genevieve McClain, Josephine Ponton, Jeanette Marvin, Mrs. Bruce Hoagland, DeNize Lohman, and Bess Johnston.

KERN CANYON

MRS. W. A. McDougall, *Reporter*

L. O. Wolcott of the research department spent two days with us looking over the Company's holdings in this locality. Upon his return to Fresno, C. O. Price and party were sent down to run a survey over the lines.

On July 28th a farewell party was given in honor of our fellow employee, R. A. Beck, who left us on the first of August to join the ranks of the benedicts. The party was carefully arranged by R. J. Finch and J. A. Irvin, and was a complete surprise to Mr. Beck. A table was spread on the lawn where refreshments were served, and a gift of a combination waffle and griddle iron was presented. Besides

the power house employees there were present the state highway employees.

The marriage of R. A. Beck and Miss Jessie Bowen took place at the bride's home in Fresno, August 1. Following the honey-moon the bride and groom will make their home in San Francisco, where the groom will be employed by the Great Western Power Co. We all wish the happy couple success.

R. C. Denny and C. E. Schnell of Fresno spent a day looking over the damage caused by the burning off of generator leads, as well as the temporary cable now in use.

John Coughlan, formerly of the Semitropic Substation has joined our ranks and is now breaking in as an operator.

Jess Thompson and gang spent the best part of a week overhauling the high and low tension switches and relays, and put us in condition for another year's successful operation.

Among the many questions visitors ask the operators is, "Why is it that so much water is in the river below the power house, while above the power house the river is dry?"

R. J. Finch spent four days at the beaches, and although he is not able to lie on his back says that it was worth it.

Among the visitors registered at the Canyon are Francis Boand a contractor of Fulton, Mo., and Mr. Alfred Boand, professor of mathematics at the Utah State College.

WALLET CONTAINING \$175

FOUND BY HENRY KLAMT

E. B. Hesserman, office manager for the Eilert Products Company, of Fresno, manufacturers of Sierra Ice Cream, was agreeably surprised on a recent Monday morning by having a San Joaquin Power employee walk into his office and hand him a wallet containing \$175.

Hesserman had dropped the wallet the Saturday previous while driving along Van Ness Avenue between Mariposa and Fresno streets. Henry Klamt, a San Joaquin Power draughtsman followed a few minutes later and picked up the wallet.

Early Monday morning Klamt hunted up Hesserman and returned the wallet, refusing any reward for his service. Klamt made no comment on his act more than to say he did only what was right.

DINUBA DISTRICT

BLANCHE WEDDLE, *Reporter*

A party consisting of District Manager Hazen G. Redfern, Salesman Jack Hammond, of Dinuba District, C. B. Merrick of the Fresno office, and Mr. Furnas of the Colorado Wood Works of Reedley, made a business trip to Merced to investigate an electrical wood drying kiln. Each member of the party reported an enjoyable time and a very interesting trip. Furnas was greatly interested in the wood drying kiln, and contemplates putting one in at the Colorado Wood Works at Reedley in the near future.

Hazen G. Redfern, Jack Hammond and C. B. Merrick of the Fresno office made a business trip to Porterville September 26 to study the sweating of citrus fruits by electricity. Mr. Redfern and Mr. Hammond have had a busy month making business trips to different points, but each trip has been for the purpose of learning something new about electricity.

Jack Hammond of the Selma office has taken a position as salesman in the Dinuba office. All of us welcome Jack to our office.

The Dinuba office is beginning to think this is a matrimonial bureau instead of an office, as two more of our young ladies have had diamond rings placed upon their fingers, and we believe that they like all of the rest that have had such will soon be wearing the plain gold symbol of slavery. They are Ione Carmichael, new business clerk, and Blanche Reed in the Consumers' Department. Ione contemplates owning half interest in the Keystone Grocery Store of Dinuba, while Blanche, like many others that have left this office, is strong for the Shell Oil men.

The Power Club has been more or less defunct during the summer months on account of the hot weather. We held a very interesting meeting the night of September 25th, and made tentative plans for extensive entertaining this fall, which will be greatly aided by the recent addition of the stock sales bonus of \$2.00 per member to the treasury. The first of these events will take place on the evening of October 5th, Steve Ontko, as usual, to have charge of the main issue,—eats. Wilbur Macy and Jack Hammond will have charge of the entertainment.

Chester Adams, our chief clerk, spent his two weeks vacation visiting Lake Tahoe, Yosemite, and several points of interest in Nevada. Since Chester's return, he says he thinks he would rather "sport around" and have a good time than work. We believe him.

Wilbur Macey, assistant chief clerk, packed his suit case, put on his outing clothes and left town at a high rate of speed in his nearly broken down "flivver" to join his wife, who has been gone for several weeks.

Mildred Harshman, in the consumers' department, walked into the office on the morning of August 20th, unusually early with a broad smile, which we soon discovered was caused by an unusually bright ring on her left hand. Mildred left our service September 1st.

George Southworth, one of our line-men, is wearing a big smile over the arrival of a son, Don Lee. Don is a proud owner of a share of San Joaquin Light & Power Corporation Stock. The Sun Maids are on the job.

Catherine Beam, in the Consumers' Department, left September 1st for a month's visit with her parents in Portland, Oregon. This was Catherine's first trip home in two years.

Mrs. Blanche Weddle, our stenographer, was hostess at a miscellaneous shower in honor of Golda Blythe, our New Business clerk, who left our employment September 1st sharp. The Power Club is watching Golda.

Ione Carmichael, who has been in the Consumers' Department, takes the position of New Business clerk, succeeding Golda Blythe.

We note that Fresno has boasted of the number of bobbed haired girls in the Fresno office, but we with 60 percent of our girls with shorn locks claim honorable mention.

TULE RIVER

M. D. MURPHY, *Reporter*

Russell Huber who has been doing the outside work for the past two years has left Tule to seek employment elsewhere.

Mrs. Olive Pinney, who formerly lived at Tule, was here for a few days as the guest of Mrs. F. R. McGeorge.

Over forty deer have been brought

through Tule Camp so far this season, one of which was killed by Russell Huber. Everybody enjoyed this one.

Although the Tulare County Fair is sixty miles distant, we are all very much interested in it because Mr. Birkhead of the headworks has sent a selection of dahlias to the fair for the horticultural exhibit.

Vic Nelson spent a few days roaming the hills hereabouts and then rested up at the home of Superintendent McGeorge.

John Murphy and a party of friends from Los Angeles came up on the first for a four-day deer hunt. Living in Los Angeles has its disadvantages in this case for John killed a nice deer and had to leave it here, because the law prohibits the transportation of venison into Los Angeles county at this time.

The vacation and camping season being nearly over, the office at the road control station has been removed and a sign erected warning the public that the control ordinance still remains in effect. Lots of people don't believe in signs.

Once again vacation time at Tule has rolled around. Ross Lathrop is the next man out and he is in a quandry as to whether to oil his hiking shoes and gun or his automobile.

Mrs. J. R. White who has been visiting relatives in Fresno returned home last week.

Miss Katie Page of Strathmore was a guest of her sister, Mrs. Ross Lathrop, during the week of September 10.

SANTA MARIA

CATHERINE TODD, *Reporter*

H. E. Evans, meter reader and collector, has left the employ of the Company to attend the University of California. "Happy" has been with the Company for about two years, and we all regret his leaving.

A. V. Tomasini formerly storekeeper, has taken over the work of meter reader and collector, Paul Sword, now storekeeper, having been transferred from the plant.

A. D. Church, district manager, and family spent a delightful two weeks vacation in the southern part of the state.

Charles Dalziel, former relief operator, is now attending the University of California.

A. V. Tomasini, meter reader and collector, spent his vacation in Eureka. He reports having had a fine time.

F. E. Howell, meter tester, spent several pleasant days in the Sequoia Big Trees.

Sixty-five employees and members of their families from San Luis, Paso Robles and Santa Maria attended a weinie bake given August 13 by the Midland Power Club of the Santa Maria District on the lovely lawn of the Santa Maria substation yard. The feast, consisting of everything from weinies to cake, started about 7:00 o'clock. A short business meeting was held while we were seated at the table. A beautiful electric percolator was presented by the Club to Mr. and Mrs. Clyde Dyer, who were recently married. A feature of the program was the initiation of a number of new members by the "blanket tossers," amid the cheers of the onlookers.

LEONARD CHEW IS STAR SALESMAN AT COALINGA

The remarkable showing of the Coalinga District in the Stock Sales Campaign has attracted the attention of the entire San Joaquin Power organization. While every employee in the district has made one or more sales, there is one particular star in the district of which the Go-Getters are very proud. He is Leonard Chew, lineman, and has established a new record for stock sales since the campaign was launched March 10. During the Prior Preferred Baseball League series, Leonard made a score of 177 per cent. He made three home runs during the contest with the Bakersfield team, and five during the final contest with Selma. Including sales made previous to the baseball contest Chew has sold 250 per cent of the Coalinga quota.



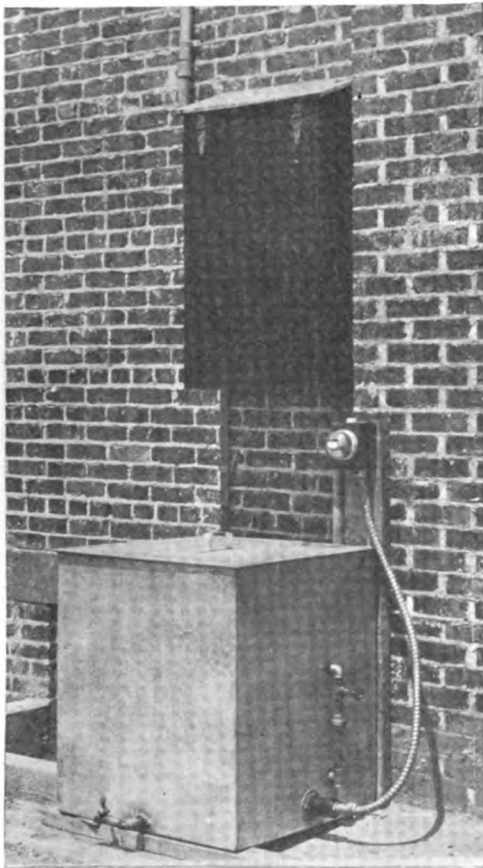
To be a good hunter you must be a good woodsman, and that means a man who is always careful with fire.

Electric Sterilizers New Dairy Convenience

Four Cans are Thoroughly Sterilized Every Fifteen Minutes in Small Plant Built by San Joaquin Man.

ELECTRIFICATION of the dairy has made another forward step in Fresno county. The kilowatt is now aiding in sterilizing milk cans, a process required by State law. An electrical sterilizer has recently been installed by the San Joaquin Light & Power Corporation for Earl Smith on his dairy at San Joaquin.

This sterilizer, which is a patent of F. P. Fair of the Pioneer Electric Company of San Joaquin, utilizes the principle of the electric water heater in generating steam for the can sterilization process.



Electrical sterilizer for milk cans. Heat is developed by a five-kilowatt water heating element in the bottom of the container. Four milk cans are thoroughly sterilized in fifteen minutes in this sterilizer.

The sterilizer consists of a galvanized iron boiler, measuring three feet in all dimensions, and fitted with a fairly tight cover. A five-kilowatt water heating unit is installed in the bottom of the tank, and the flow of water is regulated to keep the water level up to the five-gallon mark.

The cans are placed in an inverted position on a false bottom, the cover is put on, and the outfit is ready for the sterilization process.

Steam can be generated in this sterilizer in twenty minutes, and fifteen minutes additional is required to sterilize the first cans placed in the boiler. After the first set of cans has been sterilized, the twenty minute period in which to heat the water is no longer required, and other sets of cans can then be sterilized in every fifteen minute period.

An auxiliary water tap is provided to bring the water level up to any amount required to supply hot water for the flushing out of the dairy house and any other purpose for which water may be required.

The use of this electrical water heater on the ranch removes the fire hazard which is ever present on ranches using wood or oil to generate steam for sterilizing. In addition to this, the convenience of having the sterilizer installed in or adjoining the dairy house instead of out in the barnyard, as was necessary with wood or oil burning generators and sterilizers will prove an attraction to many dairy ranchers.

NEW FOWLER HIGH SCHOOL IS SHOWN ON COVER PAGE

The illustration shown on the cover page of this month's issue is adapted from the facade of the beautiful new Fowler High School. The electrical equipment in the Fowler High School is very complete. The installation provides for 50 horsepower in motors in the mechanical arts department in addition to the lighting load.

Stop and think! A hunting license only costs \$1.00, but a forest fire set through carelessness may cost you \$500 or more.

San Joaquin Light and Power Corporation

A Few Statistics as of June 30, 1923

- 2,149 employees in all departments—operating and construction.
- 15,217 bondholders and stockholders.
- 34,945 square miles in which company operates.
 - 10 counties in Central California served—Mariposa, Merced, Madera, Fresno, Kings, Tulare, Kern, Monterey, San Luis Obispo, Santa Barbara—with a population of 350,000.
- 63,283 gas, water and electric consumers.
- 110,467 horsepower developed in 11 hydro-electric plants.
- 72,066 horsepower developed in 3 steam plants.
- 182,533 horsepower developed in 14 plants.
- 497,831,276 kilowatt hours total output of system in 12 months ending June 30, 1923.
- 632,965,700 cubic feet of natural and manufactured gas sold in 12 months ending June 30, 1923, in 3 cities.
- 5,500 miles of electric transmission and distribution lines.
- 165 miles of main used in distribution of gas.
- 27 miles of main used in distribution of water in two cities.
- 2 cities supplied with power for electric railways.
- 16,315,100,000 gallons storage capacity for water used in generating electricity.
- 2,477,556,400 cubic feet of natural gas and 582 barrels of oil used in generating electricity during 12 months ending June 30, 1923.
- 62,115 horsepower of agricultural motors depending on San Joaquin Power, irrigating 372,690 acres of land.
- 46,452 horsepower of industrial motors supplied by San Joaquin Power.
- 19,031 horsepower of oil well motors operated by San Joaquin Power.
- 2,397 horsepower of municipal power served by San Joaquin Power.
- 225,971 horsepower total connected load.
- \$2,157,880.82 wages paid employees in 1922.
- \$513,731.89 taxes paid in 1922.